SmartSwitch 9000-6 Slot
9C106 and 9C706 Chassis
Setup and Installation Guide

9031993-02

CABLETRON SYSTEMS

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Application of Council Directive(s):	**89/336/EEC** **73/23/EEC**
Manufacturer's Name:	**Cabletron Systems, Inc.**
Manufacturer's Address:	**35 Industrial Way** **PO Box 5005** **Rochester, NH 03867**
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Conformance to Directive(s)/Product Standards:	**EC Directive 89/336/EEC** **EC Directive 73/23/EEC** **EN 55022** **EN 50082-1** **EN 60950**
Equipment Type/Environment:	**Networking Equipment, for use in a Commercial or Light Industrial Environment.**

We the undersigned, hereby declare, under our sole responsibility, that the equipment packaged with this notice conforms to the above directives.

Manufacturer	Legal Representative in Europe
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Title	Title
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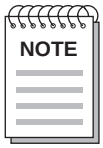
Chapter 1

Introduction

Welcome to the Cabletron Systems **SmartSwitch 9000-6 Slot 9C106 and 9C706 Chassis Setup and Installation Guide**. This manual provides installation instructions and essential reference information for the Cabletron Systems SmartSwitch 9000-6 Slot networking chassis and its associated modules.



Unless noted differently, the information in this guide applies to both the 9C106 and 9C706 SmartSwitch 9000-6 Slot chassis, which are referred to as either the "9C106" or the "chassis".

SmartSwitch 9000-6 Slot 9C106 Overview

The following section provides a brief overview of the major components of the SmartSwitch 9000-6 Slot chassis and describes several of the important features of these components.

9C106 Chassis

The 9C106 chassis is a networking platform that provides support for the configuration and operation of up to six Cabletron Systems SmartSwitch 9000 interface modules.

Features

Multiple Technology Support

The design of the chassis allows it to provide support for existing and future Local Area Networking technologies such as Ethernet, Fast Ethernet, Token Ring, Fiber Distributed Data Interface (FDDI), Systems Network Architecture (SNA), Wide Area Networks (WAN), and Asynchronous Transfer Mode (ATM).

The Backplane

The 9C106 SmartSwitch 9000-6 Slot chassis provides six distinct backplane buses, and the 9C706 provides an additional seventh bus, the Cell Transfer Matrix. Each bus serves a particular set of needs. The seven backplane buses are shown in Figure 1-1.

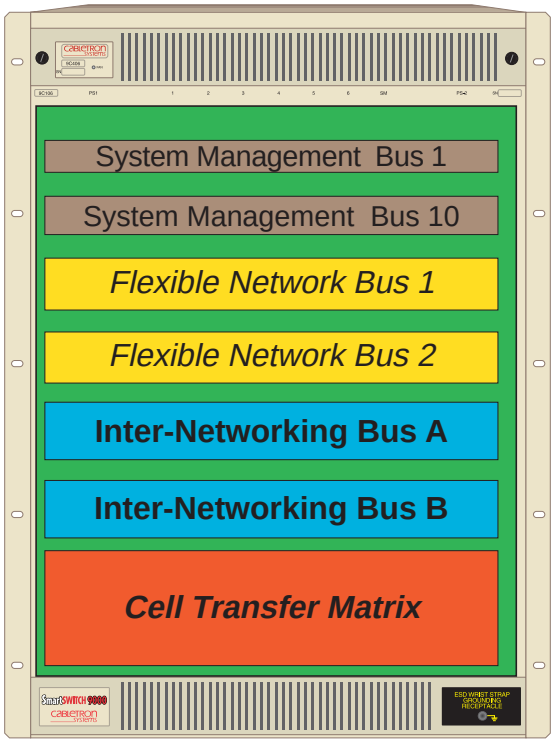


Figure 1-1. The SmartSwitch 9000-6 Slot Backplane Buses

The descriptions of the seven backplane buses are as follows:

System Management Bus 1

The System Management Bus 1, abbreviated SMB-1, is a management bus devoted solely to transferring management information between the modules in the chassis. It is through the SMB-1 that modules inform each other, and the System Monitor, of their current operating status, diagnostic test results, initialization queries and other information. The SMB-1 operates at 1 Mbps, and every module in the chassis has a connection to it.

System Management Bus 10

The System Management Bus 10, or SMB-10, performs similar functions to those of the SMB-1 previously discussed in this section. The SMB-10 bus is devoted to the transfer of management data within the chassis, but is used for out-of-band or Local Management operations. The SMB-10 operates at Ethernet speeds of 10 Mbps, and is connected to any manageable module in the chassis. Access to the SMB-10 for Local Management operations is provided through an Ethernet Port Interface Module (EPIM) slot on the 9C306 System Monitor, or through the serial COM ports, also located on the System Monitor. The SMB-10 can also be accessed from in-band management through a Telnet application.

The Flexible Network Buses

The Flexible Network Buses, FNB-1 and FNB-2, are the primary backplane buses used to connect SmartSwitch 9000 modules for shared network designs. Each FNB bus operates as a dual, counterrotating Fiber Distributed Data Interface (FDDI) ring. Each FNB bus operates at 100 Mbps, and consists of one primary ring and its associated secondary ring. In the event of a failure of a station or a connection, the signals from the primary ring are wrapped onto the secondary ring, creating a single ring and allowing network traffic to continue circulating. The construction of the FNB backplanes includes shunting connectors which allow network signals to pass by unpopulated slots in the chassis. This design frees Network Managers from a dependence on specific ordering or placement of modules, and allows modules to be removed from the FNB without causing a wrap of the FDDI ring.

The Internal Network Buses

The Internal Network Buses, abbreviated INB-1 and INB-2, are designed to simultaneously support both packet and ATM cell transport. Each INB data channel is 64 bits wide (56-byte data bus and 8-byte management and control bus) and runs at a clock rate of 40 MHz, yielding a sustained data rate of 2 Gbps, and a burst rate of 2.5 Gbps. The 8-byte management and control bus allows all signaling and bus arbitration functions to occur out-of-band with regard to user data.

The Cell Transfer Matrix (installed in the 9C706 chassis only)

The Cell Transfer Matrix provides a Time Division Multiplexed (TDM) based mesh of full duplex, high speed (1.6 Gbps) dedicated interconnections capable of carrying standard ATM cell traffic. These interconnections are a series of point-to-point links between an individual module, and every other module that directly connects to the Cell Transfer Matrix. If the 9C706 chassis has 6 modules that connect to the CTM installed, there are 30 point-to-point links between all the modules, providing a total aggregate switching capacity of 32 Gbps.

Support for All SmartSwitch 9000 Interface Modules

The chassis is designed to offer the same networking capabilities as Cabletron Systems original SmartSwitch 9000 chassis, thus supporting the same SmartSwitch 9000 networking interface modules.

9C206-1 Power Supply

The 9C206-1 power supply, shown in Figure 1-2, is a 1000 watt, triple output supply that provides power to the SmartSwitch 9000-6 Slot chassis. At least one power supply must be installed; however, an additional power supply can be installed to achieve redundancy. When two power supplies are installed, the system uses a current sharing scheme where each supply provides power equally.

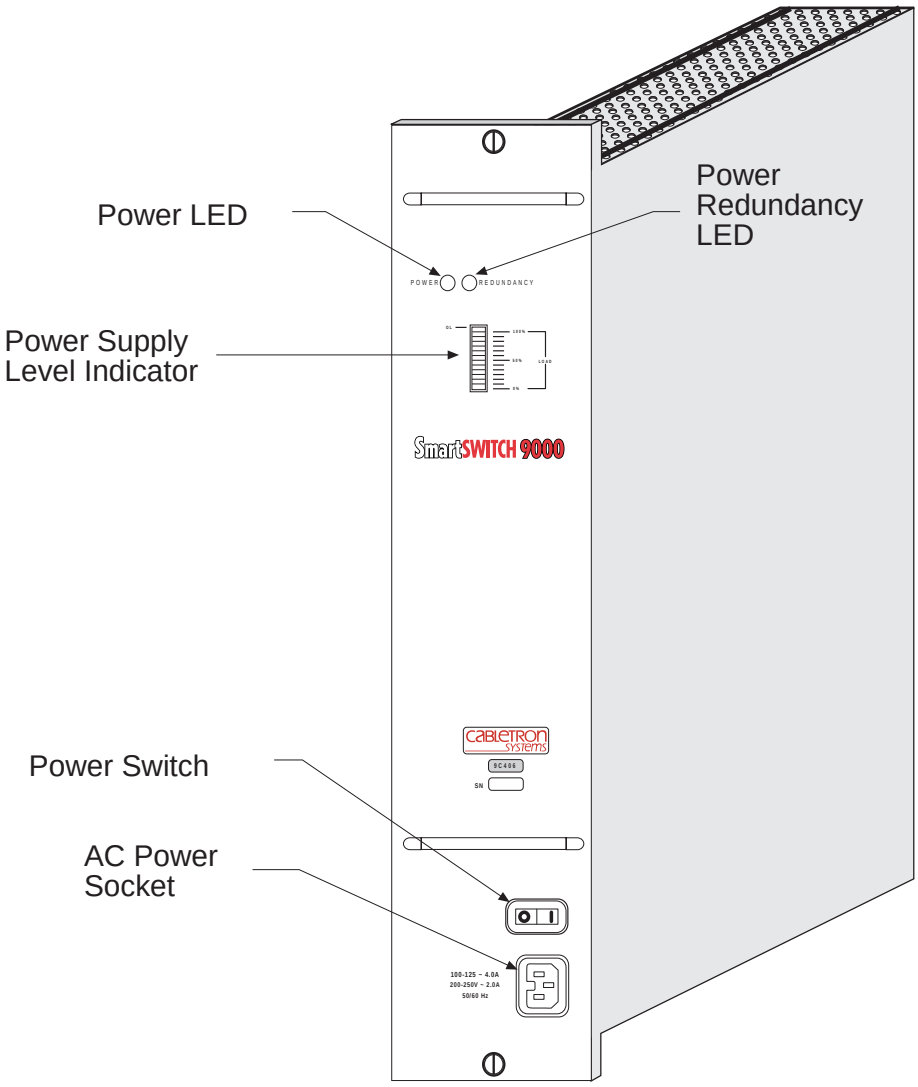


Figure 1-2. The 9C206-1 Power Supply

Features

Thermal Overload Protection

A thermal shutdown circuit is included within the 9C206-1 power supply. This circuit protects the power supply from overheating if a thermal overload occurs. Automatic recovery takes place after the thermal overload condition is corrected.

Load Sharing

Each 9C206-1 power supply uses a current sharing scheme whereby if two power supplies are used, under all load conditions, each supply provides 50% (± 5%) of the required load on each output. This feature increases the life of each power supply.

Universal AC Input

The 9C206-1 power supply accepts AC input voltage ranging from 100–250 volts at 50/60 Hz. In addition, power factor correction circuitry is employed to limit harmonic distortion of the ac mains.

Hot Swapping

9C206-1 power supplies can be installed or removed from the front of the chassis while another power supply is operating without affecting network operation.

LANVIEW LEDs

Each 9C206-1 power supply has three LANVIEW LEDs: the PWR Status LED indicates the status of the 9C206-1 power output and the Power Supply Level Indicator LED indicates the percentage of the power supply load being used. The Redundancy LED indicates the redundancy status for dual power supply systems.

9C306 System Monitor

The 9C306 System Monitor, shown in Figure 1-3, provides out-of-band management capabilities for the SmartSwitch 9000-6 Slot system. The System Monitor is inserted into the SmartSwitch 9000-6 Slot chassis, in the slot marked SM, in the right side of the module card cage.

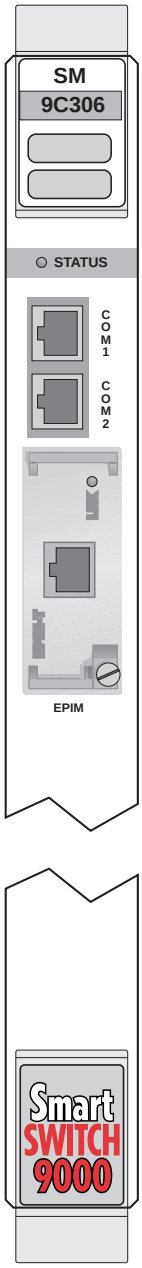


Figure 1-3. The 9C306 System Monitor

Features

Out-of-Band Management

Out-of-band management refers to managing the SmartSwitch 9000-6 Slot via a Local Management (LM) connection or an SNMP-based management application that does not use the same network connection to the chassis as "user data."

Three out-of-band management interfaces are built into the 9C306 System Monitor. Two interfaces are serial RS232 ports:

- COM1 supports local management via a VT100 session.
- COM2 supports local management via a VT100 session, SLIP, or PPP, or is used to monitor an American Power Conversion UPS.

The remaining out-of-band management interface supports any standard Cabletron Systems Ethernet Port Interface Module (EPIM). This interface provides a direct connection to the internal System Management Bus-10 (SMB-10).

Environmental/Power Monitoring

The 9C306 System Monitor Module monitors and reports chassis power parameters, as well as the operating status of the chassis cooling module.

Flash EEPROM

The capability of downloading future firmware upgrades has been built into the 9C306 System Monitor.

Hot Swapping

The 9C306 System Monitor can be removed from the chassis while the SmartSwitch 9000-6 Slot is running without interrupting network performance.

LANVIEW LED

The STATUS LED is built into the front of the 9C306 System Monitor. This LED indicates the status of the System Monitor.

How to Use This Manual

To gain a full understanding of the 9C106 chassis and its capabilities, and to help eliminate any potential problems during or after installation, read and understand all of the instructions in this document before attempting to install the SmartSwitch 9000-6 Slot chassis.

The following summarizes the organization of this manual.

Chapter 1, **Introduction**, provides an overview of the 9C106 and 9C706 chassis, provides a list of related documentation., and details the procedures to follow for obtaining assistance from Cabletron Systems.

Chapter 2, **SmartSwitch 9000-6 Slot Chassis Installation**, details the procedures to unpack a chassis and prepare it for use. These procedures may also be followed when replacing or upgrading the core components (power supplies, fan modules, or Media Interface Modules).

Chapter 3, **9C206-1 Power Supply Operation**, describes the functions of the SmartSwitch 9000-6 Slot power supply. This chapter also contains information on the use and meaning of the LANVIEW status monitoring and diagnostic LEDs on the SmartSwitch 9000-6 Slot.

Chapter 4, **Specifications**, provides detailed physical, environmental, and safety specifications for the SmartSwitch 9000-6 Slot chassis, power supplies, and the fan module.

Related Manuals

The manuals listed below should be used to supplement the procedures and technical data contained in this manual.

Cabletron Systems *SmartSwitch 9000 Local Management User's Guide*

Cabletron Systems *SmartSwitch 9000-6 Slot 9C306 System Monitor Module User's Guide*

In addition, each Interface Module has a specific User's Guide and Local Management Appendix.

Getting Help

For additional support related to this device or document, contact Cabletron Systems using one of the following methods:

World Wide Web	http://www.cabletron.com/
Phone	(603) 332-9400
Internet mail	support@cabletron.com
FTP Login Password	ftp://ftp.cabletron.com/ *anonymous* *your email address*
To send comments or suggestions concerning this document, contact the Cabletron Systems Technical Writing Department via the following email address: **TechWriting@cabletron.com** *Make sure to include the document Part Number in the email message.*	

Before calling Cabletron Systems, have the following information ready:

- Your Cabletron Systems service contract number
- A description of the failure
- A description of any action(s) already taken to resolve the problem (e.g., changing mode switches, rebooting the unit, etc.)
- The serial and revision numbers of all involved Cabletron Systems products in the network
- A description of your network environment (layout, cable type, etc.)
- Network load and frame size at the time of trouble (if known)
- The device history (i.e., have you returned the device before, is this a recurring problem, etc.)
- Any previous Return Material Authorization (RMA) numbers

Chapter 2

SmartSwitch 9000-6 Slot Chassis Installation

This chapter provides guidelines for choosing a site to install the SmartSwitch 9000-6 Slot Chassis. It also provides instructions on unpacking and rack mounting the chassis. Installation instructions for the power supplies, fan tray, System Monitor Module, and media interface modules are also provided.

Installation Requirements

Only qualified personnel should perform installation procedures.

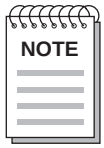
The following guidelines must be followed to select a site for the SmartSwitch 9000-6 Slot Chassis. Failure to ensure that these guidelines are met may result in installation difficulties and/or unsatisfactory operation. Prior to beginning any installation, ensure that the proposed location meets the following requirements:

- The site must have an unrestricted free surface area around the SmartSwitch 9000-6 Slot chassis, allowing for free movement of air. An open space of at least 84 high by 63.5 wide by 81.24 centimeters deep (29.5 high by 25 wide by 24 inches deep) is the minimum recommended.
- If the unit is installed in an enclosed equipment cabinet, the cabinet must have a built-in cooling fan.
- The maximum theoretical heat dissipation of the SmartSwitch 9000-6 Slot chassis is 8700 BTUs per hour. Actual heat dissipation varies depending on the modules installed in the SmartSwitch 9000-6 Slot chassis. The temperature of the location must be maintained between 5° and 40°C (41° and 104°F) with changes in temperature no greater than 10°C (18°F) per hour.

- A standard 3-prong power receptacle must be located within 6 feet of the system. One circuit is recommended for each power supply. The AC wiring for the receptacle must be able to supply 12 amps at 120 volts or 6 amps at 220 volts. Proper grounding for the system must be maintained.

Once a suitable site has been chosen, the SmartSwitch 9000-6 Slot chassis may be installed. The unit may be freestanding or rack mounted.

Unpacking the SmartSwitch 9000-6 Slot Chassis



Unpack SmartSwitch 9000-6 Slot chassis components only as needed. Leave the components in their protective shipping cartons until you are ready to install that component.

Observe all antistatic precautions when handling sensitive electronic equipment.

Unpack the chassis by following the steps below:

1. Unpack the SmartSwitch 9000-6 Slot chassis by carefully removing it from the shipping box. (Save the shipping box and packing materials in the event the chassis must be reshipped.)
2. Remove the chassis from the protective plastic bag. (Save the bag in the event the unit must be reshipped.)
3. Examine the SmartSwitch 9000-6 Slot carefully, checking for damage. If any damage is noted, DO NOT install the chassis. Contact Cabletron Systems immediately.
4. Remove the accessory package.
5. Remove the Electrostatic Discharge (ESD) Wrist Strap package.

Rack Mounting the SmartSwitch 9000-6 Slot Chassis

The chassis can be mounted in a standard 19-inch equipment rack.

If the rack is not secured to the floor, it is recommended that the SmartSwitch 9000-6 Slot be installed in the bottom half of the rack. This prevents the rack from being top heavy.

Read the section, **Installation Requirements**, *in this chapter before completing the following procedure.*

Two people may be required to lift the chassis into place.

The chassis is secured with ten bolts, five on each side. Using the bolts provided with the rack, bolt the chassis to the rack, starting with the bottom holes and working up, as shown in Figure 2-1.

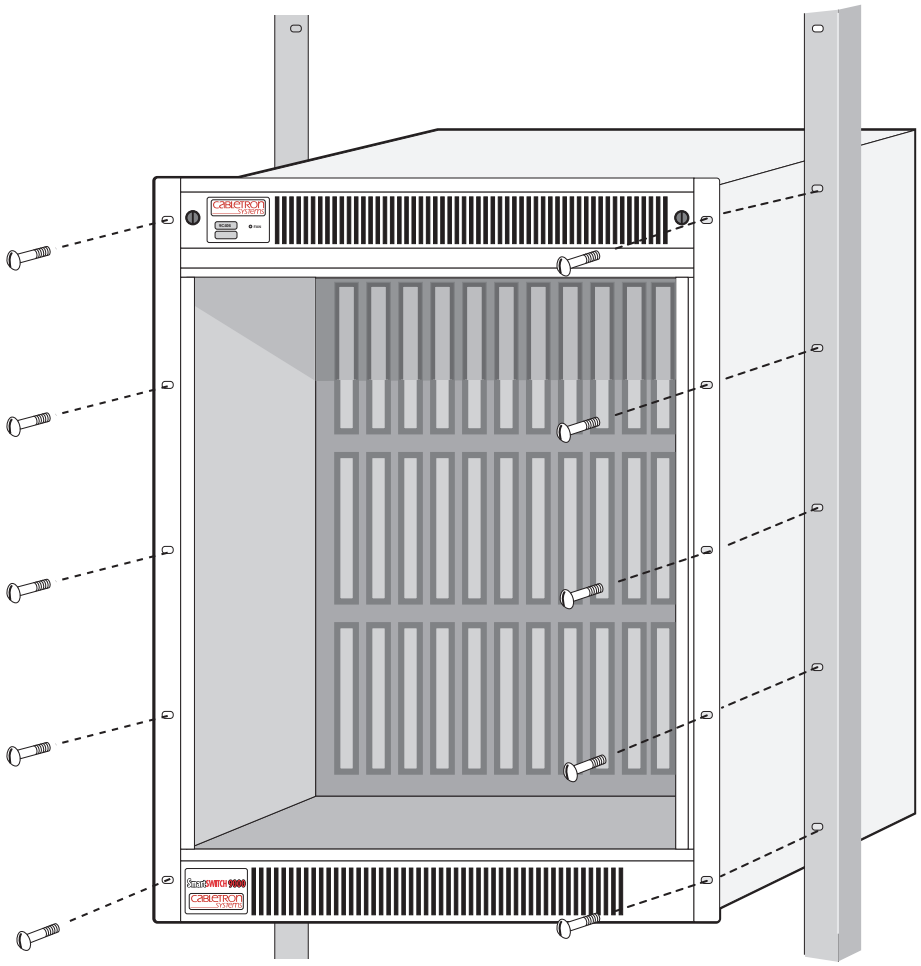


Figure 2-1. Rack Mounting the Chassis

Installing a Power Supply

Only qualified personnel should perform installation procedures.

Read the section, **Installation Requirements**, *in this chapter before completing the following procedure.*

At least one power supply must be installed on the front of the SmartSwitch 9000-6 Slot chassis. An additional power supply can be added to achieve redundancy.

A power supply is installed by plugging it into either the left or right power supply slot on the front of the SmartSwitch 9000-6 Slot chassis, as shown in Figure 2-2.

Install a power supply by following the steps below:

1. Unpack the power supply by removing it from the shipping box and sliding the two foam end caps off the unit. (Save the shipping box and packing materials in the event the power supply must be reshipped.)
2. Remove the power supply from the protective plastic bag. (Save the bag in the event the power supply must be reshipped.)
3. Examine the power supply carefully, checking for damage. If any damage is noted, DO NOT install the power supply. Contact Cabletron Systems immediately.
4. Hold the power supply by the handles and do the following:

Forcing a misaligned module into place can damage the module and/or the chassis backplane.

   a. Align the power supply so that the guide rails on the top and bottom of the power supply align with the rail tracks on the inside of the chassis.
   b. Slide the power supply into the chassis.

c. Firmly plug the power supply into the corresponding connector on the back of the chassis by pushing the power supply until its frame touches the surface of the SmartSwitch 9000-6 Slot chassis.

d. Do not force the power supply in place. If significant resistance is encountered before the frame is flush with the chassis, remove the power supply, realign it, and push it in again.

e. Secure the power supply to the chassis by tightening the two slotted screws on the top and bottom of the power supply. For proper chassis grounding, the screws must be properly tightened.

5. If you are installing a second power supply, remove the blank plate from the second power supply slot (keep the blank plate in the event you need to remove the power supply), and repeat steps 1–4.

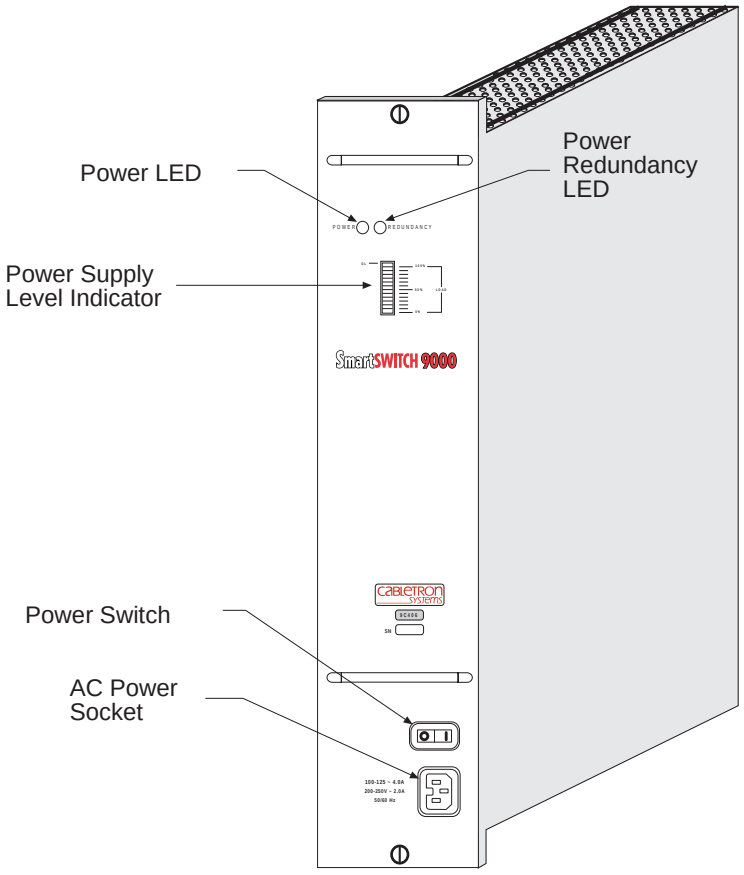


Figure 2-2. Installing a Power Supply

Installing the 9C306 System Monitor

The 9C306 System Monitor is installed in the slot marked SM on the right front side of the SmartSwitch 9000-6 Slot chassis, as shown in Figure 2-3.

Install a System Monitor by following the steps below:

The ESD (Electrostatic Discharge) wrist strap should be attached before handling the System Monitor Module or SmartSwitch 9000 Interface Modules. In addition, observe all static safety precautions when handling these modules to prevent damage from ESD.

1. Unpack the System Monitor by removing it from the shipping box and sliding the two foam end caps off the unit. (Save the shipping box and packing materials in the event the System Monitor must be reshipped.)
2. Remove it from the protective plastic bag. Observe all precautions to prevent damage from Electrostatic Discharge (ESD). (Save the bag in the event the System Monitor must be reshipped.)
3. Remove the plastic protective cap that covers the connector on the rear of the System Monitor.
4. Examine it carefully, checking for damage. If any damage exists, DO NOT install it. Immediately contact Cabletron System.
5. Install the System Monitor Module in the chassis slot marked SM, as shown in Figure 2-3. Slide the module between the module guide. Take care that the module slides in straight and properly engages the backplane connectors. Lock down the plastic tabs at the top and bottom of the module.

If the SmartSwitch 9000-6 Slot chassis has been powered up, the 9C306 System Monitor illuminates the STATUS LED.

If the STATUS LED is any color other than green, refer to Cabletron Systems *SmartSwitch 9000-6 Slot 9C306 System Monitor User's Guide*.

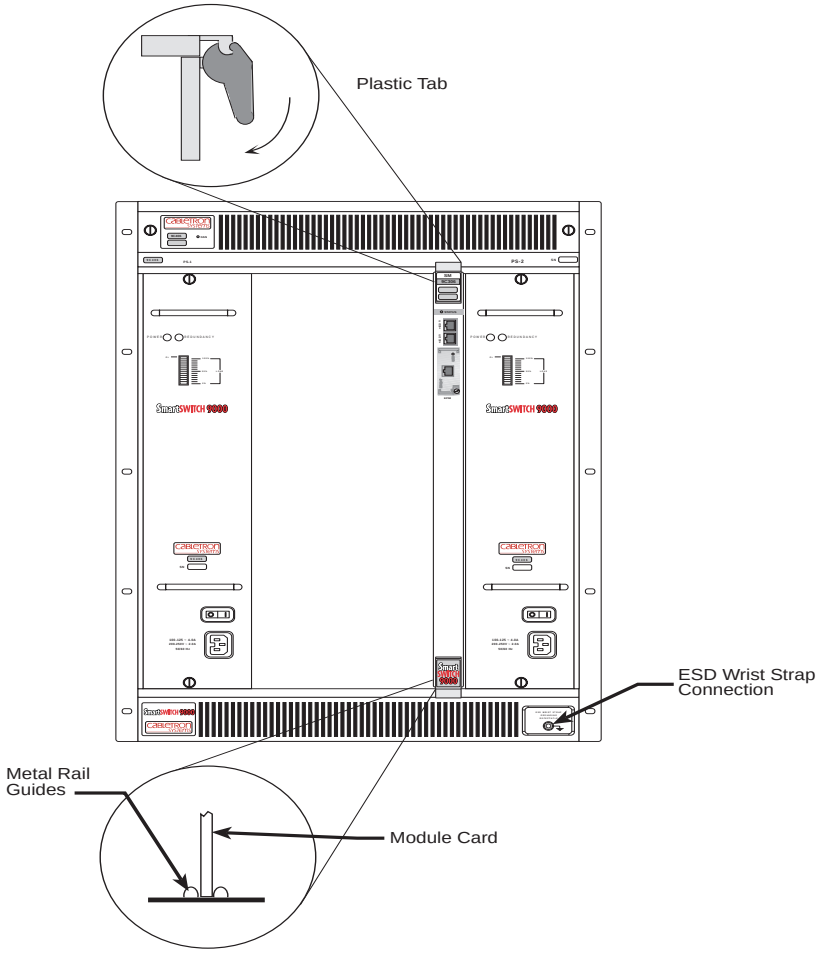


Figure 2-3. Installing SmartSwitch 9000-6 Slot Modules

Installing a Fan Module

Only qualified personnel should perform installation procedures.

The Fan module can only be installed in the slot at the top of the chassis, as shown in Figure 2-4. Install the Fan Module by following the steps below:

1. Unpack the Fan Module by carefully removing it from the shipping box. (Save the shipping box and packing materials in the event the unit must be reshipped.)

2. Remove the Fan Module from the protective plastic bag. (Save the bag in the event the unit must be reshipped.) Observe all precautions to prevent damage from Electrostatic Discharge (ESD).
3. Examine the Fan Module, carefully checking for damage. If any damage is noted, DO NOT install the Fan module. Contact Cabletron Systems immediately.
4. Hold the sides of the Fan Module.
5. Line up the rails on the Fan Module with the tracks on the chassis.
6. Slide the Fan Module into the chassis until it is completely seated.
7. Secure the Fan Module into the chassis by tightening the slotted screws.
8. To remove a Fan Module, perform these steps in reverse.

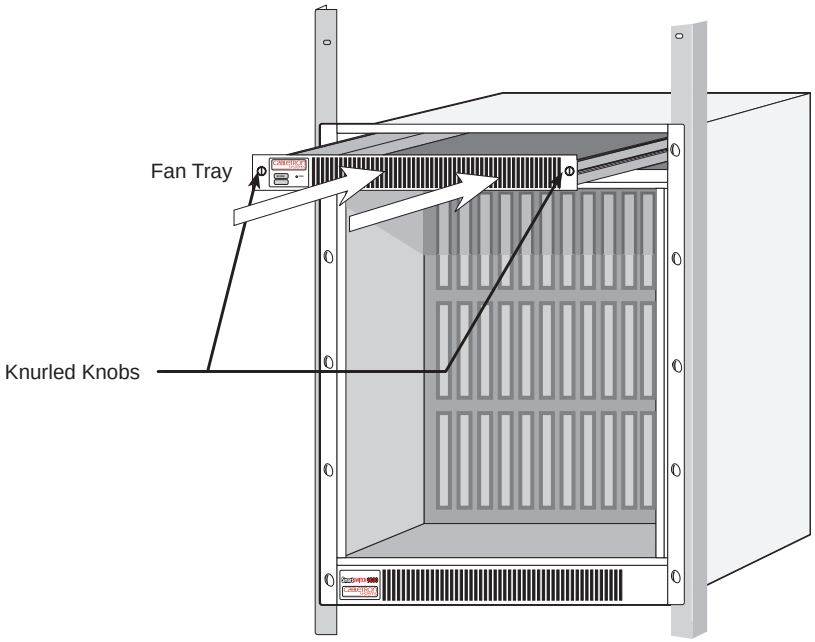


Figure 2-4. Installing the Fan module

Installing SmartSwitch 9000-6 Slot Interface Modules

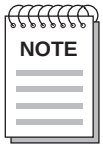
SmartSwitch 9000 Interface Modules can be installed in any of the six slots that are available. To install Interface Modules, see Figure 2-3 and follow the steps below:

Observe all antistatic precautions when handling sensitive electronic equipment.

1. Remove the blank plate, covering the slot in which the Interface Module will be installed. All other slots must remain covered to ensure proper airflow and cooling. (Save the blank plate in the event you need to remove the module.)
2. Unpack the Interface Module by carefully removing it from the shipping box. (Save the box and packing materials in the event the module must be reshipped.)
3. Remove the Interface Module from the plastic bag. (Save the bag in the event the Interface Module must be reshipped.)
4. Examine the Interface Module, carefully checking for damage. If any damage is evident, DO NOT install the Interface Module. Contact Cabletron Systems Global Call Center immediately.
5. Install the Interface Module in the chassis by aligning the module card between the upper and lower metal rail guides of any available slot, sliding it into the chassis, and locking down the top and bottom plastic tabs, as shown in Figure 2-3. Take care that the Interface Module slides in straight and properly engages the backplane connectors.

Powering Up the SmartSwitch 9000-6 Slot Chassis

Power up the SmartSwitch 9000-6 Slot chassis by following the steps below:



If two power supplies are installed, repeat the procedure below for each supply.

1. Plug one end of the power cord (supplied with the power supply) into the ac power socket on the lower right front corner of the power supply.
2. Plug the other end of the power cord into an ac receptacle. Turn on the power supply using the switch located near the power socket.
3. The power supply uses a soft-start feature and does a pre-power diagnostic check. Outputs become enabled within 5 seconds of turning the power on.
4. Check that the PWR LED on the power supply is green.

If the LED is any color other than green, refer to Chapter 3, **9C206-1 Power Supply Operation.**

5. Check that the Status LED on the System Monitor is green.

   If the LED is not green, refer to the Cabletron Systems *SmartSwitch 9000-6 Slot 9C306 System Monitor User's Guide*.

6. Check that the System Management Bus (SMB) and the Board OK (BOK) LEDs on the front panel of each installed Interface Module are green. (Be sure the boards have completed booting; this may take up to 20 seconds.)

If an Interface Module's SMB and BOK LEDs are not green, refer to the specific User's Guide for that Interface Module.

Chapter 3

9C206-1 Power Supply Operation

This chapter describes the operation of the SmartSwitch 9000-6 Slot chassis power supply. The chapter also details the use of LANVIEW LEDs for troubleshooting and status information.

The 9C206-1 power supply can operate with input voltages ranging from 100–250 Vac at 50/60 Hz. Each 9C206-1 provides a maximum of 1000 watts of power to the SmartSwitch 9000-6 Slot.

When two power supplies are installed, the system uses a current sharing scheme where each supply provides 50% (± 5%) of the required load.

Each 9C206-1 power supply converts the 100–250 Vac to three different dc outputs for internal use by the system. Each of these outputs is described below.

- 56 volts supplied to the 48 volt dc System Power Bus for use throughout the chassis for each installed module and the cooling fans.
- 5 volts supplied to the Diagnostic Power Bus used by the diagnostic controllers and the System Monitor.
- 3.3 volts supplied to the INB Termination Power Bus.

9C206-1 Power Supply LANVIEW LEDs

The LANVIEW LEDs on the front of the 9C206-1 power supply may be used as an aid for troubleshooting.

There are three LANVIEW LEDs visible to the user, as shown in Figure 3-1:
- PWR Status LED
- Power Supply Level Indicator LED
- PWR Redundancy LED

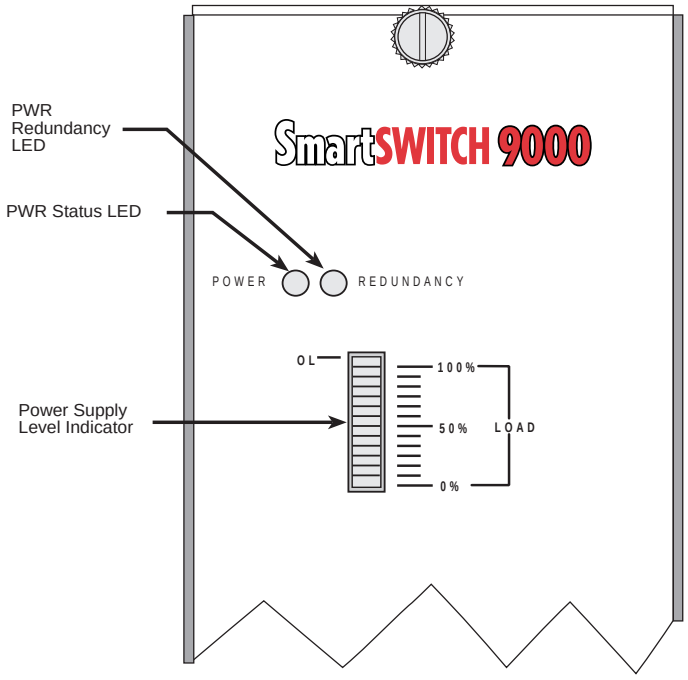


Figure 3-1. 9C206-1 Power Supply LANVIEW LEDs

PWR Status LED

The PWR Status LED indicates the input and output status of a power supply. The possible states and descriptions of the PWR Status LED are listed in Table 3-1.

Table 3-1. PWR Status LED

LED Color	State	Description
Green	Functional	The 56-volt, 5-volt, and 3.3-volt outputs are within established tolerances.
Red	Fault	One of the system power supply outputs is out of regulation.
Off	Power off	No system power.

Power Supply Level Indicator LED

The Power Supply Level Indicator LED indicates the percentage of the power supply load. The possible states and descriptions of the Power Supply Level Indicator LED are listed in Table 3-2.

Table 3-2. Power Supply Level Indicator LED

Segment Number(s)	LED Color	State	Description
1–9	Green	10–90% of power load being used.	No action necessary.
10	Amber	Greater than 90% of power supply being used.	Warns user of a potential overload condition.
11	Red	Overload condition exists.	Add an additional power supply or reduce number of modules in the chassis.

Power Redundancy LED

The Power Redundancy indicates the presence of redundant power supplies. The possible states and descriptions of the PWR Status LED are listed in Table 3-3.

Table 3-3. Power Redundancy LED

LED Color	State	Description
Green	Redundant	System has two power supplies installed and both are providing less than 50% of their maximum load.
Amber	Non-redundant	Two power supplies are installed and at least one is providing over 50% of its maximum load, or a fault condition exists.
Off	Redundancy not available	Only one power supply is installed.

Chapter 4

Specifications

Environment

Operating Temperature:
5°C to 40°C (41°F to 104°F)

Storage Temperature:
-30°C to 73°C (-22°F to 164°F)

Operating Relative Humidity:
5% to 90% (non-condensing)

Regulatory Compliance

Safety:
UL 1950, CSA C22.2 No. 950, EN 60950, 73/23/EEC, and IEC 950

Electromagnetic Compatibility (EMC):
FCC Part 15, VCCI V-3, CSA C108.8, EN 50082-1, 89/336/EEC, and EN 55022

9C106 SmartSwitch 9000-6 Slot Chassis

Dimensions
66 H x 43.2 W x 40.6 D centimeters
(26 H x 17 W x 16 D inches)

Weight

Unit:	11.36 kilograms (25 pounds)
Shipping:	16.82 kilograms (37 pounds)

9C706 SmartSwitch 9000-6 Slot Chassis

Dimensions

66 H x 43.2 W x 40.6 D centimeters
(26 H x 17 W x 16 D inches)

Weight

Unit: 11.36 kilograms (25 pounds)
Shipping: 16.82 kilograms (37 pounds)

9C206-1 Power Supply

Dimensions

48.3 H x 10.7 W x 36.8 D centimeters
(19 H x 4.2 W x 14.5 D inches)

Weight

Unit: 6.8 kilograms (15 pounds)
Shipping: 6.8 kilograms (15 pounds)

9C306-1 System Monitor Module

Dimensions

48.3 H x 10.7 W x 36.8 D centimeters
(19 H x 4.2 W x 14.5 D inches)

Weight

Unit: 2.27 kilograms (5 pounds)
Shipping: 2.27 kilograms (5 pounds)

9C406 Fan Module

Dimensions

7.6 H x 40.6 W x 36.8 D centimeters
(3 H x 16 W x 14.5 D inches)

Weight

Unit: 3.2 kilograms (7 pounds)
Shipping: 3.2 kilograms (7 pounds)

Appendix A

SmartSwitch 9000-6 Slot Chassis Security Bars

The SmartSwitch 9000-6 Slot chassis is equipped with two security bars that prevent the unauthorized removal of the interface modules. This appendix provides instructions to install the SmartSwitch 9000-6 Slot security bars.

Only qualified personnel should perform installation procedures.

To install the SmartSwitch 9000-6 Slot chassis security bars, a flat blade screwdriver is needed.

Installing the Security Bars

The two security bars supplied with the SmartSwitch 9000-6 Slot chassis must be installed after all modules are in place. The two security bars are identical. One security bar is installed across the top of the modules and the other is installed across the bottom of the modules. The following steps should be performed to install the security bars.

1. To install the bottom security bar, orient the security bar with the securing tabs facing down and toward the chassis as shown in Figure A-1. Make sure that the heads of the screws are facing outward.
2. Lower the security bar behind the plastic tabs on the modules so that the holes in the securing tabs on the security bar are aligned with the join in the beveled corners of the interface modules as shown in Figure A-2.
3. Secure the bottom security bar to the chassis with the screws that are built into the security bar assembly.

4. To install the top security bar, orient the bar with the securing tabs facing up and toward the chassis.
5. Slide the security bar up, so that the holes of the securing tabs are aligned with the join in the beveled corners of the interface modules.
6. Secure the top security bar to the chassis with the screws that are built into the security bar assembly.

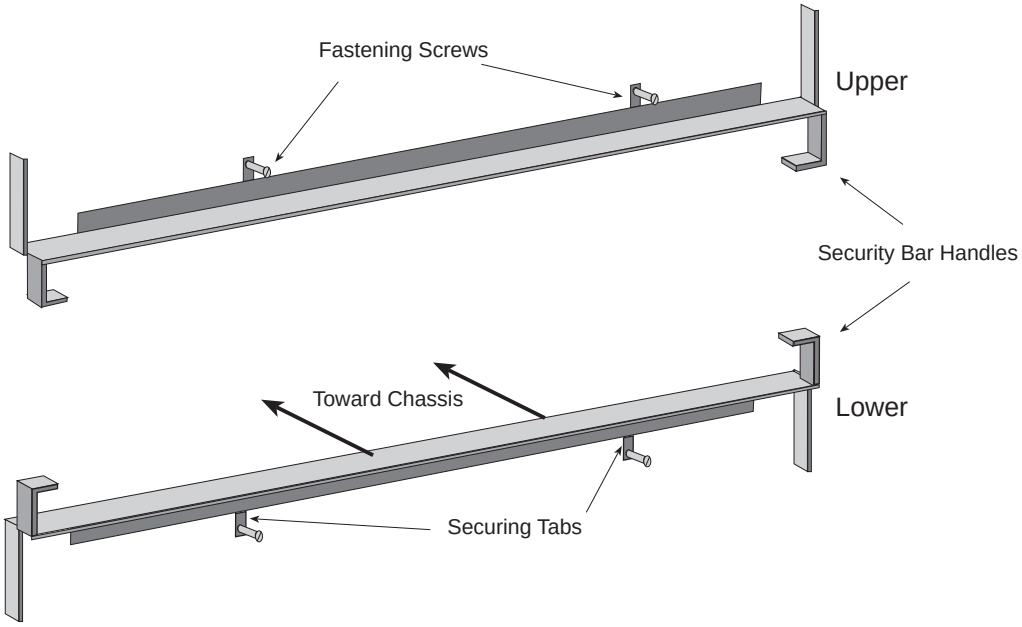


Figure A-1. Security Bar Orientation

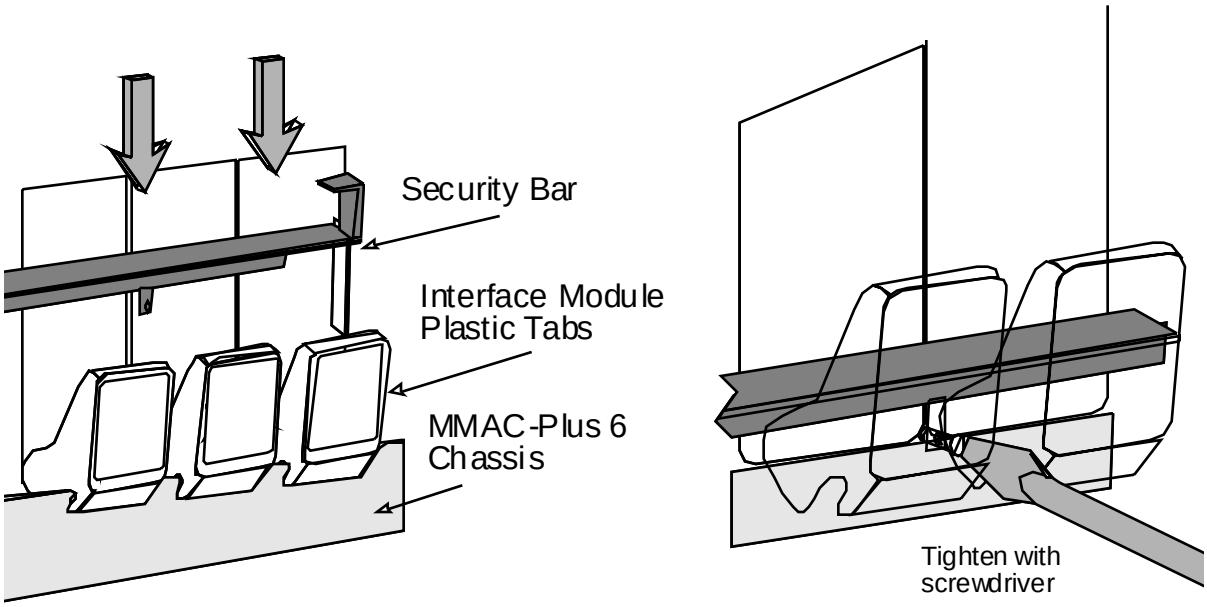


Figure A-2. Security Bar Installation

Removing Security Bars

The security bars should remain in place while the SmartSwitch 9000-6 Slot chassis is operating.

Remove the security bars by loosening the two screws that hold each bar in place. Slide the security bars out from behind the interface module plastic tabs. Be sure to remove both security bars before attempting to remove any interface modules from the chassis. Set the security bars aside for re-installation.